GLOSSARY

100-year floodplain: The area within a floodplain that statistically has a 1% chance of flooding in any given year.

anadromous: Fish that spend a part of their life in the sea but return to freshwater streams to spawn.

anaerobic: Characterized by the absence of molecular oxygen, or growing in the absence of molecular oxygen (as in "anaerobic bacteria").

aquifer: A water-bearing (water saturated) geological formation capable of yielding water in sufficient quantity to constitute a usable supply.

at-grade system: The dispersal system of an on-site wastewater treatment system that has specific design parameters located at or close to the original grade. The discharge from an at-grade system is always subsurface.

bacteriophage: Viruses that infect bacteria.

best management practices (BMPs): Methods or measures designed and selected to reduce or eliminate the discharge of pollutants from nonpoint source discharges. BMPs include treatment requirements and operating procedure and practices to control site runoff, spills or leaks, sludge or waste disposal, or drainage from raw material storage.

biochemical oxygen demand (BOD): An indirect measure of the concentration of biologically degradable material existing in organic wastes. It usually reflects the amount of oxygen consumed in 5 days by biological processes breaking down organic waste.

biodegrade: Decomposition or metabolic breakdown of material by biological agents or microorganisms, especially bacteria, into simple stable compounds.

biodiversity: The number and variety of organisms and their relative frequencies within a specified geographic region.

biofilm: A thin usually resistant layer of microorganisms (as bacteria) that form on and coat various surfaces (as of water pipes and catheters).

biofilter: A filter in which sewage is subjected to the action of microorganisms that assist in decomposing it.

biomat: A clogging mat that is extremely active biologically and helps ensure the conditions for optimal treatment of effluent from a septic system by restricting the effluent's infiltration rate into the soil, inducing unsaturated soil conditions and reducing the chances of high dispersion below the system. Biomats are highly effective in removing bacteria and pathogens and detaining viruses from the effluent.

chaparral: A plant community common to parts of California that is shaped by a Mediterranean climate (mild, wet winters and hot, dry summers) and wildfire.

contaminants of concern: Undesirable substances in water that pose a public health threat, alter the aesthetic acceptability of the water (e.g., odor, taste, color) or degrade the natural quality of surface and groundwater resources.

conventional system: An on-site wastewater treatment system consisting of a septic tank and typically a gravity subsurface dispersal system (e.g., leachfield, seepage pit). A conventional system may include septic tank effluent pumping where the dispersal area is located at a higher elevation than the associated septic tank, or a pressure distribution system, a mound system, or an at-grade system.

Cyanobacteria: A major group of photosynthetic bacteria that have two photosystems, produce molecular oxygen, and use water as an electron-donating substrate in photosynthesis—also called blue-green algae.

denitrification: Removal of nitrogen through the biological reduction of nitrate (NO_3^-) to nitrogen gas (N_2) by anaerobic bacteria.

dispersal system: A leachfield, seepage pit, mound, at-grade, subsurface drip system, evapotranspiration and adsorption system, or other types of systems for final wastewater treatment and subsurface discharge.

dissolved inorganic compounds: Chemical substances of mineral origin, or more correctly, not of basically carbon compounds that are dissolved in water.

dissolved oxygen: Concentration of oxygen dissolved in water, wastewater or other liquid, usually expressed in milligrams per liter, parts per million, or percent of saturation.

effluent: The wastewater discharged from an on-site wastewater treatment component or any portion thereof.

endemic: Restricted or peculiar to a locality or region.

endocrine-disrupting chemicals (EDCs): Exogenous (introduced from or produced outside the organism or system) active substances that disrupt the proper functioning of the endocrine system by interacting with hormone receptors at low doses and interfering with reproduction, development, and other hormonally mediated processes.

engineered fill: Imported soil or other material that meets certain specifications and is used to provide the minimum required effective soil depth in a soil absorption system, typically where the high groundwater or a restrictive layer occurs.

eutrophication: The degradation of water quality caused by enrichment by nutrients, primarily nitrogen and phosphorus, which results in excessive plant (principally algae) growth and decay. Low dissolved oxygen in the water is a common consequence.

evapotranspiration and adsorption bed: A subsurface dispersal system that relies on soil capillarity and root uptake to disperse the effluent from a septic tank or supplemental treatment system through surface evaporation, soil adsorption, and plant transpiration.

failure: A condition of an on-site wastewater treatment system that causes or threatens to cause impairment of beneficial uses of surface water or groundwater or threatens public health by creating a potential for direct or indirect contact between domestic wastewater or partially treated domestic wastewater and the public.

free oxygen: Oxygen in its molecular forms, O_2 (normal diatomic oxygen) or O_3 (ozone), uncombined with other elements. Free oxygen is a requirement of all aerobic organisms.

greywater: Wastewater drained from sinks, tubs, showers, dishwashers, clothes washers, and sources other than toilets.

groundwater recharge areas: Areas where water infiltrates into the earth and either increases the total amount of water stored underground or only replenishes the groundwater supply depleted through pumping or natural discharge.

heavy metals: High-density, metallic elements that can be toxic (e.g., lead, silver, mercury, arsenic).

isomer: one of two or more compounds, radicals, or ions that contain the same number of atoms of the same elements but differ in structural arrangement and properties.

land uses: Any uses for land ranging from housing and retail buildings to parks and open spaces.

leachfield: One or a group of chambers or trenches designed to disperse effluent from a septic tank or supplemental treatment system.

methylated mercury: An organometallic cationic compound with the formula $[CH_3Hg]^+$. It is a bioaccumulative environmental toxicant.

on-site wastewater treatment system: A system relying on natural processes and/or mechanical components that is used to collect, treat, and disperse/discharge wastewater from single dwellings or buildings at or near the point of use.

pathogen: Disease-causing infectious microorganisms, including some protozoans, bacteria and viruses.

permeability: The capacity of soil, sediment, or porous rock to transmit water; the property of soil or rock that allows passage of water through it.

point of compliance: The location where effluent meets groundwater.

pretreatment: The conversion and/or reduction of certain water pollutants in wastewater by any technology or combination of technologies that precedes discharge to a subsurface wastewater infiltration system or other final treatment unit or process before final dissemination into the receiving environment.

protozoa: Small, one-celled animals including amoebae, ciliates, and flagellates that are represented in almost every kind of habitat and include some pathogenic parasites of humans and domestic animals.

public/quasi-public uses: A zoning classification applied to those areas in public ownership and whose improvements are used by the public, and also those areas in private ownership but planned for public use.

reduction factor: The percent reduction in the size of a leachfield that may be allowed with the use of gravel chambers in a subsurface soil dispersal system. This reduction may enable a landowner to install a septic system on a smaller lot than would have otherwise been allowed.

riparian habitat: Areas adjacent to rivers and streams with a differing density, diversity, and productivity of plant and animal species relative to nearby uplands.

saturated zone: The subsurface zone extending from the water table downward in which all open pore spaces in the soil and rock are filled with water.

scum: A filmy layer of extraneous or impure matter that forms on or rises to the surface of the liquid in a septic tank.

septic constraint areas: Those areas with noted high groundwater conditions, poor soil conditions for septic systems or noted septic tank system problems, and lands identified as primary groundwater recharge areas.

setback: A minimum horizontal distance maintained between and on-site wastewater treatment system and a potential point of impact or other physical point of reference.

site: The location of the on-site wastewater treatment system and, as deemed appropriate by the permitting authority, a reserve area capable of disposing 100% of the design flow from all sources it is intended to serve.

slope: The rate of fall or drop measured as percent of grade.

sludge: Semi-solid organic material that settles and accumulates on the bottom of the septic tank.

soil: The naturally occurring body of porous mineral and organic materials on the land surface. It is composed of unconsolidated materials above bedrock; sand-sized, silt-sized, and clay-sized particles mixed with varying amounts of larger fragments and organic material. The various combinations of particles differentiate specific soil textures identified in the U.S. Department of Agriculture's Soil Classification Chart.

soil horizon: A distinct layer of soil or soil material approximately parallel to the land surface and different from adjacent layers in physical, chemical, and biological properties or characteristics such as color, structure, texture, consistence, and pH.

soil permeability: The capacity of the soil to transmit liquids.

sorption: Removal of solutes from the gas or liquid phase and their concentration on the solid phase of a medium (encompasses absorption and adsorption); The effect of gases or liquids being incorporated into a material of a different state and adhering to the surface of another molecule.

special-status species: Any species that is listed, or proposed for listing, as threatened or endangered by the U.S. Fish and Wildlife Service or National Marine Fisheries Service under the Endangered Species Act; any species covered by the Migratory Bird Treaty; any species designated by the U.S. Fish and Wildlife Service as a "candidate" or "listing" species or "sensitive" species; and any species that is listed and protected by state stature in a category implying potential endangerment of extinction.

supplemental treatment systems: Pretreatment devices added to a septic system to achieve higher levels of wastewater treatment relative to a conventional septic tank in order to address different site constraints. These systems treat the wastewater before it is discharged to a dispersal system.

surface water: All waters whose surface is naturally exposed to the atmosphere, such as rivers, lakes, reservoirs, ponds, streams, impoundments, seas, estuaries, and all springs, wells, or other collectors directly influenced by surface water.

targeted impaired areas: Areas within 600 feet of a surface water body listed under Section 303(d) of the Clean Water Act as impaired for either nutrients or pathogens, for which OWTS have been identified as a contributor, and for which a total maximum daily load has been adopted.

total coliforms: A group of bacteria consisting of several genera belonging to the family Enterobacteriaceae. The historical definition of this group has been based on the method used for detection (lactose fermentation) rather than on the tenets of systematic bacteriology.

total maximum daily load (TMDL): TMDL is the quantity of a pollutant (the "loading") that the water body can receive and still be in compliance with water quality standards. The TMDL must include an allocation of allowable loadings to point and nonpoint sources, with consideration of background loadings, and must include an implementation plan to reduce the loading of a specific pollutant from various sources to achieve compliance with water quality objectives.

total nitrogen: The total concentration of nitrogen in a sample present as ammonia, nitrate, nitrate or bound in organic compounds; not the same as total nitrogen which is the total concentration of nitrogen in a sample present as ammonia or bound in organic compounds only.

total suspended solids (TSS): Solids found in wastewater or in a stream that can be removed by filtration.

vadose zone: The subsurface zone between the water table and the land surface where some of the spaces between the soil particles are filled with air (unsaturated zone).